What is being measured when we assess economic value?[1] The value of a good or service to someone is not what they paid or otherwise gave up for it. In most situations relevant to the CCMP, it is instead the most that they would be *willing* to pay or otherwise give up for that good or service. The sum of everyone's *willingness-to-pay* (or *WTP*) for a good or service is the appropriate measure of total value of that good or service to society. As suggested above, we may place value on (that is, we may be willing to pay for) many things that cannot be bought or sold. Also, we can "pay" for both market and non-market goods and services in ways that involve no direct transfer of money or other assets. For instance, we may give up a leisurely weekend for the satisfaction of performing some form of volunteer work. A community may give up some existing land development opportunities in order to maintain orderly growth patterns, protect or enhance the character of the community or preserve options for development for the future.

Intuitively, it makes sense to subtract out from this total value all that was given up for it (the costs). The appropriate measure of what is given up, whether it be monetary or otherwise, is what economists call the *opportunity cost*. The opportunity cost of a good or service is defined as the highest possible value that it could generate for society in the next most profitable use, or next best use. The "next best" concept is used because we have to assume that people use inputs available to them in the way that they believe will generate the most return or satisfaction for them. The definition of opportunity costs cannot be fully explained

---

[1] At first glance, a seemingly reasonable estimate of the total value to society of the good in question would be the total expenditures (average price times the total quantity consumed). This is the wrong measure for two reasons. First of all, it measures what people spend on a good, not what they would be willing to spend on it. What they actually spend on a good is a function of the good's price, on which people generally have little effect. Their willingness to pay, on the other hand, is the measure of the good's value to them. The difference between willingness to pay and the cost of purchase is termed the *consumer surplus*.

The second problem with equating expenditures and economic value is that not all of the money spent on the good is a "benefit" to the seller. Their costs have to be considered, and the price times the quantity sold reflects the total of what all sellers received, not their production costs. Overall, producers receive a benefit which is the expenditures minus their total costs, including all labor, equipment, interest on borrowed funds, etc. This benefit is called the *economic rent*.

For the case of a good that is freely traded in a well-functioning market, the economic value of that good is the consumer surplus plus the economic rent. Accessible treatments of the measures of individual and social welfare in the context of environmental policy can be found in Batie and Shabman (1982), Desvousges and Smith (1983), Tietenberg (1988) and Scodari (1990). More thorough treatments are in Fisher (1981), Smith and Desvousges (1986), and Cropper and Oates (1992). The formal expression of these concepts will not be fully reviewed here nor will the appropriate adjustments necessary to evaluate changes in quality or price using compensated demand curves (Smith and Desvousges, 1986). The important point here is that this concept of economic value can be used in situations where the good or service in question cannot be freely bought or sold, like the visual quality of a shorefront view, recreational value of a sport fishing trip, the knowledge that Albemarle Sound is clean and healthy, etc. The basic concept of measuring value is still that of net benefits, that is, the benefits minus the costs, appropriately measured.